

Technical Change Note 6

CHASSIS : 12.8
SIZE : 14"-20"-21"

DATE : 15/05/2002
VERS : 02 (20/05/2002)

- 1) **The CRT board with transistors** was started to use in production after April 2002 onwards instead of CRT board with TDA6107 (14" start from 13.04.2002 and 20"-21" from 18.04.2002).

Attached please find the 12.8 Circuit Daigram CRT with transistors.pdf file.

For 20"-21" CRT, supply voltage generated by FBT should be decreased when CRT board transistor version is used. Therefore new FBT's were produced (058013-TR6 for 20-21").

The screen adjustment changes as follows:

- Switch on the Service Menu with the Service RC and press "Yellow" teletext button.
- Find item "SCRN" in the menu. Apply color bar pattern.
- For 14" sets: Adjust the Screen potentiometer until the voltage across the pin of R727 (that is connected CRT cathode) and ground is 139±3 VDC.
For 20"-21" sets: Adjust the Screen potentiometer until the voltage across the pin of R727 (that is connected CRT cathode) and ground is 169±3 VDC.
- Exit from the service menu with the Service RC.

- 2) **Service mode** can be activated by user remote as follows (the service remote is not needed):

Activate the "Picture Menu" and press "8500" (Press "0" button to exit the Service Mode).

- 3) If **"Hotel" option** in the Service Menu is selected as "HOTEL TV", the setup menu is get by entering "4658" in the "Features Menu". The setup menu includes the following items:

- | | |
|----------------|---|
| 1. HOTEL MODE | : On/off selection and end of TV channels (start is "00") |
| 2. RADIO MODE | : On/off selection and start of Radio channels (end is "99"). |
| 3. MAX VOLUME | : Maximum allowed volume level |
| 4. RESET ADJ. | : Sound and picture preset values that will be applied after reset operation |
| 5. MESSAGE | : Welcome Message can be edited (max. 148 character long) |
| 6. INFO SCREEN | : Information Message can be edited (3 pages, each 500 character long)
Customer gets these pages by pressing "INFO" button of Remote Control |
| 7. LOAD DATA | : Not operational |
| 8. SAVE DATA | : Not operational |

Note: The above mentioned changes were included in the 12.8 Adjustments.doc file attached.

Kind regards,

Erdal GÜRBÜZ

1. ELECTRICAL ADJUSTMENTS

1.1 Supply Voltage Adjustment

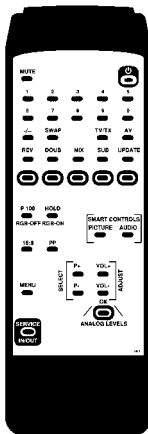
Connect a digital voltmeter to the cathode of diode D950 at the AV mode of the TV and set the screen voltage to the minimum with the screen potentiometer. Adjust the main supply voltage (B+) with P901 potentiometer to the following value (after supply adjustment, readjust Screen and focus voltage).

14"	: 105 VDC (for A33EKC01X01)
20"	: 118 VDC (for A48EJW011X21)
21"	: 110 VDC (for A51EFS83X191)

2. SERVICE ADJUSTMENTS

To enter the Service Mode, 'Service In/Out' button on the Service Remote Control or activate the "Picture Menu" with the user remote control and press "8500" (Press "0" button to exit the Service Mode).

"Red", "Green", "Yellow" and "Blue" Teletext buttons are for Feature Setup, Geometry, White Balance and IF menus respectively.



2.1 IF Adjustments

2.1.1 PAL SECAM BG/DK/I

- Apply a 38.9 MHz PAL colour bar RF signal to the pin 1 of SAW01 with a pattern generator.
- Switch on the Service Menu with the Service RC and press "Blue" teletext button.
- Check that value of "PVC38" is "07". Adjust the coil LC100 until the the "OK" is seen.
- Press "OK" button on the Service RC.
- Exit from the service menu with the Service RC.

Note: "PVF38" is for fine tuning. However, it is automatically applied when "OK" button is pressed at "PVC38" item. Thus any manual adjustment is not required.

2.1.2 SECAM L/L'

- "PVC33" and "PVF33" are reserved for Secam LL'. However, since there will be no Secam LL' production, they would not be adjusted.

2.2 AGC Adjustment

- Apply a signal with amplitude 65 ± 1 dBuV to the antenna input of TV with a pattern generator (switch sound carrier to Off and switch "Video Ext" to On).
- Switch on the Service Menu with the Service RC and press "Red" teletext button.
- Find the "AGC" with P+ / P- buttons.
- Measure the amplitude of 38.9 MHz sinusoidal signal on pin 11 (IF2) of Tuner with an oscilloscope.
- Change "AGC" to get 640 ± 20 mVpp.

- Add 5 to "AGC" value and change "2.AGC" to this value.
- Exit from the service menu with the Service RC.

2.3 Screen Adjustment

- Switch on the Service Menu with the Service RC and press "Yellow" teletext button.
- Find item "SCRN" in the menu.
- If CRT board includes TDA6107: Adjust the Screen potentiometre until the the "OK" is seen.
- If CRT board includes transistors :
For 14" sets: Adjust the Screen potentiometre until the voltage across the pin of R726 (that is connected CRT cathode) and ground is 152 ± 3 VDC.
For 20"-21" sets: Adjust the Screen potentiometre until the voltage across the pin of R726 (that is connected CRT cathode) and ground is 169 ± 3 VDC.
- Exit from the service menu with the Service RC.

2.4 White Balance Adjustment

- Apply a white pattern with a pattern generator to the antenna input.
- Enter the Service Menu with the Service RC and and press "Yellow" teletext button.
- Select "G.DRV" option with P+ / P- buttons and change its value to "32" with V+ / V- button.
- Adjust "R.DRV" and "B.DRV" for white balance. If white balance can not be adjusted properly change "GRN" value.
- Adjust "R.CUT" and "G. CUT" for red and green cut off (There is no blue cut off adjustment).
- Exit from Service menu.

2.5 Geometry Adjustments

- Apply the cross hatch pattern with a pattern generator to the antenna input.
- Enter Service Menu with Service RC and press "Green" teletext button.
- Adjust Vertical Amplitude with "V.4:3" option.
- Add 18 to ""V.4:3" value and change "V.16:9" to this value.
- Adjust vertical position with "V.POS", vertical linearity with "LNRTY", horizontal position with "H.POS".
- Subtract 14 from "V.4:3" value and change "V1. 60" to this value.
- Add 4 to "V.4:3" value and change "V2. 60" to this value.
- Change "VP.60" to "V.POS" value.
- Change "LN.60" to "LNRTY" value.
- OSD window position can be centered on the screen with "OSD.H" and "OSD.V".
- Exit from the Service Menu.

Note that: There is no horizontal width adjustment in this chassis. It can be adjusted by changing power supply voltage in the interval of -1 and +1 V.

2.6 Feature Setup

Enter the Service Menu with the Service RC and and press "Red" teletext button. Check that below features match with the set.

TUNER	: Phillips, Sharp&Alps, Panasonic, Temic
ST.BY	: YES (Default, Automatic switch off is active), NO (can be used during repair)
AV2	: YES (Front AV is available), NO
CLR.S	: PAL, PAL/NTSC3.5 (+NTSC Playback), PAL/SECAM, PAL/SECAM/NTSC3.5 (NTSC Pback)
SND.S	: BG, I, BG+DK, BG+LL'
QSS/I	: INTERCARRIER, QSS
TEXT	: NON TEXT, DEFAULT (Teletext), FASTTEXT
OSD CONTR	: On (OSD level control is On), Off
LANG	: A (West Europe), B (East Europe)
HOTEL	: NORMAL TV, HOTEL TV
RGBIN	: YES (When RGB on Scart is available, TV can not show aerial signal), NO (Default)
APR	: ON (Auto RGB level control is available) , OFF
B.STR	: ON (Black level control is available), OFF

2.7 Hotel Mode

If "Hotel" option in the Service Menu is selected as "HOTEL TV", the setup menu is get by entering "4658" in the "Features Menu". The setup menu includes the following items:

1. HOTEL MODE : On/off selection and end of TV channels (start is "00")
2. RADIO MODE : On/off selection and start of Radio channels (end is "99").
3. MAX VOLUME : Maximum allowed volume level
4. RESET ADJ. : Sound and picture preset values that will be applied after reset operation
5. MESSAGE : Welcome Message can be edited (max. 148 character long)
6. INFO SCREEN : Information Message can be edited (3 pages, each 500 character long)
Customer gets these pages by pressing "INFO" button of Remote Control
7. LOAD DATA : Not operational
8. SAVE DATA : Not operational

2.8 Factory Settings for Service Mode

Values given in Table 1 are typical values and can vary according to the CRT type.

		14"	20"	21"
AGC	Automatic Gain Control 1	32	32	32
2.AGC	Automatic Gain Control 2	AGC + 5	AGC + 5	AGC + 5
ST.BY	Standby	YES	YES	YES
PVC38	VOC Coarse (BG/I/DK)	07	07	07
PVL38	VCO Fine (BG/I/DK)	68	62	62
PVC33	VOC Coarse (LL')	07	13	13
PVL33	VCO Fine (LL')	64	64	64
APR	Auto RGB level control	ON	ON	ON
B.STR	Black level control	OFF	OFF	OFF
QSS/I	QSS/Intercarrier	INTERCARRIER	INTERCARRIER	INTERCARRIER
G.DRV	Green level	32	32	32
R.DRV	Red level	40	40	32
B.DRV	Blue level	37	37	32
R.CUT	Black level offset red	36	36	32
G.CUT	Black level offset green	32	32	32
SCRN	Screen (used for screen adj.)	0	0	0
HPOS	Horizontal shift	30	32	32
VPOS	Vertical shift	12	11	07
V.4:3	Vertical amplitude 4/3 PAL/SEC	23	32	36
V.16:9	Vertical amplitude 16/9 PAL/SEC	V.4:3 + 18	V.4:3 + 18	V.4:3 + 18
LNRTY	Vertical linearity	51	13	49
VP.60	Vertical amplitude NTSC	12	11	07
V1.60	Vertical amplitude 4/3 NTSC	V.4:3 - 14	V.4:3 - 14	V.4:3 - 14
V2.60	Vertical amplitude 16/9 NTSC	V.4:3 + 4	V.4:3 + 4	V.4:3 + 4
LN.60	Linearity NTSC	51	13	49
OSD.H	OSD Horizontal Shift	31	31	29
OSD.V	OSD Vertical Shift	39	39	38

Table 1

2.8 Exit from Service Menu

During exit from service menu, the software version and feature options (hexadecimal number) are shown on the screen.

For example: SB7.120-05 BEF9 T02020115

SPARE PARTS LIST

PART NO	DESCRIPTION	NOTES	POSITION NUMBERS
273471	C-PEM 47NF K 63V R:5		C0001 C0002
201222	CC 220PF K 50V NPO R:5		C0003 C0004
250111	EC 1UF 16V 11*5 R:5		C101 C102 C138
251107	EC 10UF M 16V 11*5 R:5		C105 C127 C134 C140
293230	CC-CHIP 22NF K 50V /0805 X7		C108 C185
294331	CC-CHIP 330NF K 16V /0805 X		C109
292110	CC-CHIP 1NF K 50V /0805 X7R		C110
293474	CC-CHIP 47NF K 50V /0805 X7		C114 C115 C116 C117 C118
294111	CC-CHIP 100NF K 25V /0805 X		C114 C115 C116
292476	CC-CHIP 4.7NF K 50V /0805 X		C128 C129
250227	EC 2.2UF 16V 11*5 R:5		C130
252112	EC 100UF 16V 11*6 R:5		C135
292110	CC-CHIP 1NF K 50V /0805 X7R		C146 C147 C148 C180
291225	CC-CHIP 220PF K 50V /0805 X		C150 C151 C184
291477	CC-CHIP 470PF J 50V /0805 N		C152 C153
291103	CC-CHIP 100PF J 50V /0805 N		C181 C182 C183
251107	EC 10UF M 16V 11*5 R:5		C301 C426 C506
293108	CC-CHIP 10NF K 50V /0805 X7		C303
292223	CC-CHIP 2.2NF K 50V /0805 X	14"	C304
292476	CC-CHIP 4.7NF K 50V /0805 X	20", 21"	C304
294111	CC-CHIP 100NF K 25V /0805 X		C306 C307
252482	EC 470UF 16V 12.5*10 R:5		C308
294231	CC-CHIP 220NF K 16V /0805 X		C401
251478	EC 47UF 16V 11*5 R:5		C402 C405 C407 C415 C430 C433
293108	CC-CHIP 10NF K 50V /0805 X7		C409 C412
291225	CC-CHIP 220PF K 50V /0805 X		C413
291103	CC-CHIP 100PF J 50V /0805 N		C416 C428
292223	CC-CHIP 2.2NF K 50V /0805 X		C418
250227	EC 2.2UF 16V 11*5 R:5		C419
290334	CC-CHIP 33PF J 50V /0805 NP		C424 C425
252229	EC 220UF 16V 11*8 R:5		C430
290222	CC-CHIP 22PF J 50V /0805 NP		C431 C432
290684	CC-CHIP 68PF J 50V /0805 NP		C438
274227	C-PEM 220NF J 50V R:5		C501
253106	EC 1000UF 25V 20*13 R:5		C503
253101	EC 1000UF 35V 25*13 R:5		C503
252476	EC 470UF 25V 11*10 R:5	21"	C504
250111	EC 1UF 16V 11*5 R:5		C505 C511 C512
293152	CC-CHIP 15NF K 50V /0805 X7		C508
273333	C-PEM 33NF K 100V R:5		C508A
291477	CC-CHIP 470PF J 50V /0805 N		C509
292476	CC-CHIP 4.7NF K 50V /0805 N	14" IRICO CRT	C509
252105	EC 100UF 50V 12*8 R:5		C510
294109	CC-CHIP 100NF K 50V /0805 X		C513 C562
250100	EC 1UF 160V 11*6.3 R:5		C553
271390	C-PPM 390NF J 250V R:15		C554
272687	C-PPM 6.8NF %3.5 1.5/1.6KV	14"	C555
272820	C-PPM 8.2NF %3.5 1.5/1.6KV	21"	C555
274330	C-PEM 330NF J 250V R:15		C556
251109	EC 10UF 250V 16*10 R:5		C560
202105	CC 1NF K 1KV Y5P R:5		C561
274107	C-PEM 100NF J 100V R:5		C563
252229	EC 220UF 16V 11*8 R:5	21"	C564
252482	EC 470UF 16V 12.5*10 R:5	20"	C564
272154	C-PPM 1.5NF J 1600V R:15		C565
293108	CC-CHIP 10NF K 50V /0805 X7		C570
290473	CC-CHIP 47PF J 50V /0805 NP		C701 C706 C709
274105	C-PEM 100NF J 250V R:10		C701 C713
251109	EC 10UF 250V 16*10 R:5		C702 C703

SPARE PARTS LIST

291225	CC-CHIP 220PF K 50V /0805 X		C703 C707 C710
PART NO	DESCRIPTION	NOTES	POSITION NUMBERS
273225	C-PEM 22NF J 63V R:5		C704
202221	C-CE 2.2NF K 2KV Y5P R:7.5		C705 C712
201476	C-CE 470PF K 1KV R:5		C705 C708 C711
274103	C-PEM 100NF K 275V-AC R:15		C901
274224	C-PEM 220NF K 275V-AC R22.		C901
251120	EC 10UF 10V 5*4 R:5		C901
274103	C-PEM 100NF K 275V-AC R:15		C902
202105	CC 1NF K 1KV Y5P R:5		C903 C904
203330	C-PPM 33NF J 630V R:15		C906
201471	CC 470PF 2KV		C907
292223	CC-CHIP 2.2NF K 50V /0805 X		C913
292151	CC-CHIP 1.5NF K 50V /0805 X	14", 21"	C914
292223	CC-CHIP 2.2NF K 50V /0805 X	20"	C914
274105	C-PEM 100NF J 250V R:10		C915
273222	C-PEM 22NF K 250V R:7.5		C915
202220	CC 2.2NF M 250VAC Y5U R:10		C920
291560	CC-CHIP 560PF J 50V /0805 N		C921
290561	CC-CHIP 56PF J 50V NPO 0805		C923
201226	CC 220PF K 2KV Y5P R:5		C950
253106	EC 1000UF 25V 20*13 R:5		C954
251107	EC 10UF M 16V 11*5 R:5		C966
251478	EC 47UF 16V 11*5 R:5		C968
291101	CC-CHIP 100PF J 50V /1206 N		C981 C982
179002	RC-CHIP 0R /1206		D103
302289	DIODE 1N4148 52MM		D105 D106
303195	DIODE 4148 MELF		D105 D106 D107
302296	DIODE 1N4148 26MM		D110
303850	LED LTL 4263 RED L=25.4		D401
303988	LED LTL 4224 RED (SHORT LEG		D401
302296	DIODE 1N4148 26MM		D402 D403 D404 D406 D407
302289	DIODE 1N4148 52MM		D402 D403 D404 D406 D407
303308	DIODE RF2007		D502
302289	DIODE 1N4148 52MM		D503 D557 D558 D559
303195	DIODE 4148 MELF		D503 D557
300305	DIODE BA157		D552 D556 D560
303227	DIODE RGP15J 		D553
302948	DIODE 1N4007		D701
302296	DIODE 1N4148 26MM		D702 D703 D704
303209	DIODE BAV21		D702 D703 D704
303308	DIODE RF2007		D901 D902 D903 D904
303244-01	DIODE RGP30K (GENERAL SEMI C		D901 D902 D903 D904
303206-01	DIODE RGP30M (GENERAL SEMI		D901 D902 D903 D904
303214	DIODE UF4006		D901 D902 D903 D904
303217	DIODE RGP10J		D905
303227	DIODE RGP15J	14"	D950
303244	DIODE RGP30K	20", 21"	D950
303813	DIODE RGP15D		D951
303993	LED LTL4221N D:3 R/D RED		D980
303991	LED IR SIR563SB3F 23/940		D981
056722	SER.FILTER TPS5.5MB	BG	F102
056745	SER.FILTER TPS6.0MB	I	F102
056762	SER.FILTER TPT02B	BG/DK	F102
056640-01	SER.FILTER MKT40.4MA110P-TF		F401
452842	IC STV2246-5X	PAL BG, I SYSTEMS	IC101
452990	IC STV2249C	PAL/SEC BG/DK SYSTEM	IC101

SPARE PARTS LIST

452439	IC TDA2822		IC301
PART NO	DESCRIPTION	NOTES	POSITION NUMBERS
452807	IC SDA555XFL		IC401
452637	IC-CHIP BR24C16		IC402
453002	IC-CHIP AT24C04N-2.7(ATMEL)		IC402
452648	IC TDA8174AW		IC501
452746	IC TDA6107Q		IC701
452795	IC TDA16846		IC901
451518	IC KA317TU T0220CASE		IC951 IC952
452382	IC-CHIP S3C1840DA9/SMB1		IC980
055139	CHOKE COIL 50MHZ 600R PH-WB		L0001 L0002
053725	COIL-CHIP 10UH %20/0805		L101 L102
052828	COIL 6.8UH K R:5		L103
053740	COIL 1UH K LAL03		L104
053798	COIL-CHIP 18UH K /0805		L109
053749	COIL 18UH K /3.4 26MM		L401
053711	COIL 10UH K (TAIYO) LAL03		L402 L403 L404
053715	COIL 6.8UH K R12.5	⚠	L502
051591	COIL H-LIN 55UH NEOSID	21"	L551
051585	COIL H-LIN 70UH	14", 20"	L551
053352	COIL- CHOKE 10UH R0814 14.1		L701
051687-02	LINE FILTER 27MH E-TYPE OPE	⚠	L901
053759	COIL 100UH LAL03		L902
053739	COIL CHOKE 50UH		L950
053506-01	COIL DEMOD 38.9 HEX		LC100
179001	RC-CHIP OR /0805 2*1.25		LK501
132209	R-VAR 2.2K (V) 5*3	14"	P901
132500	R-VAR 5K (V) 5*3	20", 21"	P901
056023	CRYSTAL 4.433619MHZ (NO LOA		Q101
056660	CRYSTAL 3.579545 90OHM BULK		Q102
056620	CRYSTAL 6MHZ (CL 30PF)		Q401
056210	CER.RESONATOR GSB455E		Q980
101221	CFR 220R J 1/2W 52MM		R0001 R0003
173273	CFR-CHIP 27K J 1/10W /0805		R101
171150	RC-CHIP 150R J 1/10W /0805		R102 R113
172152	RC-CHIP 1.5K J 1/10W /0805		R104 R105
173684	RC-CHIP 68K J 1/10W /0805		R106
174180	RC-CHIP 180K J 1/10W /0805		R108
171221	RC-CHIP 220R J 1/10W /0805		R109 R110 R111 R142
172101	RC-CHIP 1K J 1/10W /0805		R112
172561	RC-CHIP 5.6K J 1/10W /0805		R115 R123 R172
171471	RC-CHIP 470R J 1/10W /0805		R116
170683	RC-CHIP 68R J 1/10W /0805		R117
171102	RC-CHIP 100R J 1/10W /0805		R120 R151 R152
173154	RC-CHIP 15K J 1/10W /0805		R122 R124 R125
170750	RC-CHIP 75R J 1/10W /0805		R126 R127 R128 R129 R155
173562	RC-CHIP 56K J 1/10W /0805		R130
174331	RC-CHIP 330K J 1/10W /0805		R131 R175 R176
172225	RC-CHIP 2.2K J 1/10W /0805		R132 R133 R144 R145 R146
172823	RC-CHIP 8.2K J 1/10W /0805		R134
171270	RC-CHIP 270R J 1/10W /0805		R135 R136 R137
173479	RC-CHIP 47K J 1/10W /0805		R138
173101	RC-CHIP 10K J 1/10W /0805		R139
174104	RC-CHIP 100K J 1/10W /0805		R141 R149 R171
173333	RC-CHIP 33K J 1/10W /0805		R148
172475	RC-CHIP 4.7K J 1/10W /0805		R154

SPARE PARTS LIST

102141	CFR 1K J 1/4W /6 26MM	AV	R157	R568
PART NO	DESCRIPTION	NOTES	POSITION NUMBERS	
179001	RC-CHIP OR /0805 2*1.25		R159	
171332	RC-CHIP 330R J 1/10W /0805		R180	R205 R206
171471	RC-CHIP 470R J 1/10W /0805		R181	
171685	RC-CHIP 680R J 1/10W /0805		R184	
172475	RC-CHIP 4.7K J 1/10W /0805	20", 21"	R301	
172335	RC-CHIP 3.3K J 1/10W /0805	14"	R301	
173154	RC-CHIP 15K J 1/10W /0805		R302	
173333	RC-CHIP 33K J 1/10W /0805		R303	R308
172823	RC-CHIP 8.2K J 1/10W /0805		R304	
173101	RC-CHIP 10K J 1/10W /0805		R305	
170047	RC-CHIP 4.7R J 1/10W /0805		R306	R307
119331	RMF 3.3R J 1W	14"	R309	
119485	RMF 4.7R J 1.5W	20", 21"	R309	
172335	RC-CHIP 3.3K J 1/10W /0805		R401	
173101	RC-CHIP 10K J 1/10W /0805		R404	R414 R418
172101	RC-CHIP 1K J 1/10W /0805		R405	R413 R422 R423
171270	RC-CHIP 270R J 1/10W /0805		R406	
175102	RC-CHIP 1M J 1/10W /0805		R407	
172152	RC-CHIP 1.5K J 1/10W /0805		R408	R409
171685	RC-CHIP 680R J 1/10W /0805		R410	
172475	RC-CHIP 4.7K J 1/10W /0805		R411	R412 R467 R468
172561	RC-CHIP 5.6K J 1/10W /0805		R415	R416
173273	CFR-CHIP 27K J 1/10W /0805		R417	
171150	RC-CHIP 150R J 1/10W /0805		R425	
102338	CFR 3.3K J 1/4W /6 52MM		R434	R446
172273	RC-CHIP 2.7K J 1/10W /0805		R436	R511
173393	RC-CHIP 39K J 1/10W /0805		R437	
171221	RC-CHIP 220R J 1/10W /0805		R441	R442
172823	RC-CHIP 8.2K J 1/10W /0805		R445	R464
173154	RC-CHIP 15K J 1/10W /0805		R447	
172394	RC-CHIP 3.9K J 1/10W /0805		R448	R524
179001	RC-CHIP OR /0805 2*1.25		R478	
119227-01	RMF 2.2R J 1W		R501	
101471	CFR 470R J 1/2W /9 52MM	△	R502	R557
100220	CFR 22R J 1/2W 52MM		R503	
172101	RC-CHIP 1K J 1/10W /0805		R504	R552
174151	RC-CHIP 150K J 1/10W /0805		R505	R506
172183	RC-CHIP 1.8K J 1/10W /0805		R508	R512
119125	RM 1.2R J 1/2W 52MM	21"	R509	
119153	RM 1.5R J 1/2W 52MM	20"	R509	
170472	RC-CHIP 47R J 1/10W /0805	21"	R510	
171150	RC-CHIP 150R J 1/10W /0805	14"	R510	
102141	CFR 1K J 1/4W /6 26MM		R519	R568
172101	RC-CHIP 1K J 1/10W /0805	20", 21"	R520	
174104	RC-CHIP 100K J 1/10W /0805		R521	
173562	RC-CHIP 56K J 1/10W /0805		R522	R523
173221	RC-CHIP 22K J 1/10W /0805		R526	
110823	RMO 82R J 3W R:20		R554	
100473	CFR 47R J 1/4W /6 52MM		R555	
113114	RM 10K J 1/2W 52MM		R558	
119337	RMO 3.3R J 2W R:27.5 TAPE		R559	
119478	RMF 0.47R J 1W	14", 21"	R560	
119684	RMF 0.68R J 1W	20"	R560	
103116	CFR 10K J 1/4W /6 52MM		R562	
103136	CFR 10K J 1/4W /6 26MM	14"	R563	
171560	RC-CHIP 560R J 1/10W /0805		R564	
103475	CFR 47K J 1/4W /6 52MM		R705	
102159	CFR 1.5K J 1/2W /9 52MM		R711	R713 R715 R716 R725

SPARE PARTS LIST

171471	RC-CHIP 470R J 1/10W /0805		R711 R716 R721
PART NO	DESCRIPTION	NOTES	POSITION NUMBERS
171102	RC-CHIP 100R J 1/10W /0805		R712 R717
154216	NTC 5.1R M (S234R)		R901
113683	RMO 68K J 1.5W 73MM		R903
115103	RM 1M J 1W 52MM		R908
115391	RM 3.9M J 1W 52MM		R912
173333	RC-CHIP 33K J 1/10W /0805		R915 R918
172683	RC-CHIP 6.8K J 1/10W /0805		R917
115470	RM 4.7M J 1/2W 52MM	⚠	R920
113180	RMO 18K J 1W		R950
171240	RC-CHIP 240R %1 1/10W /0805		R953 R961
112131	RM 1.3K %1 1/4W 26MM		R954A
109560	CFR 5.6R J 1/4W /3.2 52MM		R956
101106	CFR 100R J 1/4W 52MM		R957
119109	RNF 0.1R J 0.4W (UFLB) 52MM	⚠	R959
120234	RMF 22R J 1/2W		R960
171394	RC-CHIP 390R %1 1/10W /0805		R962
179002	RC-CHIP 0R /1206		R981
452521	IR RECEIVER TSOP 1838		S401
054261	FUSE 2.5AT (215 SER.)	⚠	S901
056746	SAW FILTER OFW G1968M	BG SYSTEM	SAW01
056760	SAW FILTER OFW J1956M	I SYSTEM	SAW01
056070	SAW FILTER OFW K2966M	BG/DK SYSTEM	SAW01
031229	SCART SOCKET 11.1		SK101
010860	TACT SW LONG STEN		SW401 SW402 SW403
010861	ON/OFF SWITCH BK98		SW901
401141	TRN-CHIP BC848B SOT23		T101 T102 T107
401141	TRN-CHIP BC848B SOT23		T301 T302 T303
401142	TRN-CHIP BC858B SOT23		T401
401141	TRN-CHIP BC848B SOT23		T501 T502
401334	TRN STX112		T551
401332	TRN BU808DFI		T552
400338	TRN BF422		T701 T703 T705
401366	TRN BF421		T702 T704 T706
401219	TRN STP3NB60FP		T901
401047	TRN BC337-25		T950
401142	TRN-CHIP BC858B SOT23		T980
058013-TR6	FBT 2021/MS TR/003071083 12	⚠ 20, 21"(CRT with transis')	TR552
058013-TR5	FBT 2021/MS TR/003071083 12	⚠ 20, 21"(CRT with TDA6107)	TR552
058423-TR2	FBT 14/MS TR/... 12.1	⚠ 14" Irco	TR552
058413-TR5	FBT 14/MS TR/003071078 12.1	⚠ 14" Other brands	TR552
059013-TL1	SMPS 20/21" 12.1	⚠ 20", 21"	TR901
059413-TL2	SMPS 14" 12.1	⚠ 14"	TR901
7RZ136-PH3	TUNER PH ASIMETRIK UV1316/A		TU101
031176	CONN.CINCH 12.1 FRONT-AV YE		X0002
031162	KONN. CINCH RCA PJ803-4 YEL		X0002
031166	CONN.CINCH 12.1 FRONT-AV WH		X0003
031160	KONN. CINCH RCA PJ803-2 WHI		X0003
031180	CONN.HEADPHONE 12.1 FRONT-A		X0004
031856	CONN.HOUSING X2003 BLACK		X301
031860	CONN.HOUSING X2004 BLACK		X403
031864	CONN.HOUSING X2005 BLACK		X404
031780	CONN.HOUSING 2"LI GREY		X501
031777	CON.HOUSING LOCKED 5/4		X551
031532	CRT SOCKET NARROW INCHANG	14"	X703
031530-01	INCHANG/CRT SOCKET ISHM05S-	20", 21"	X703

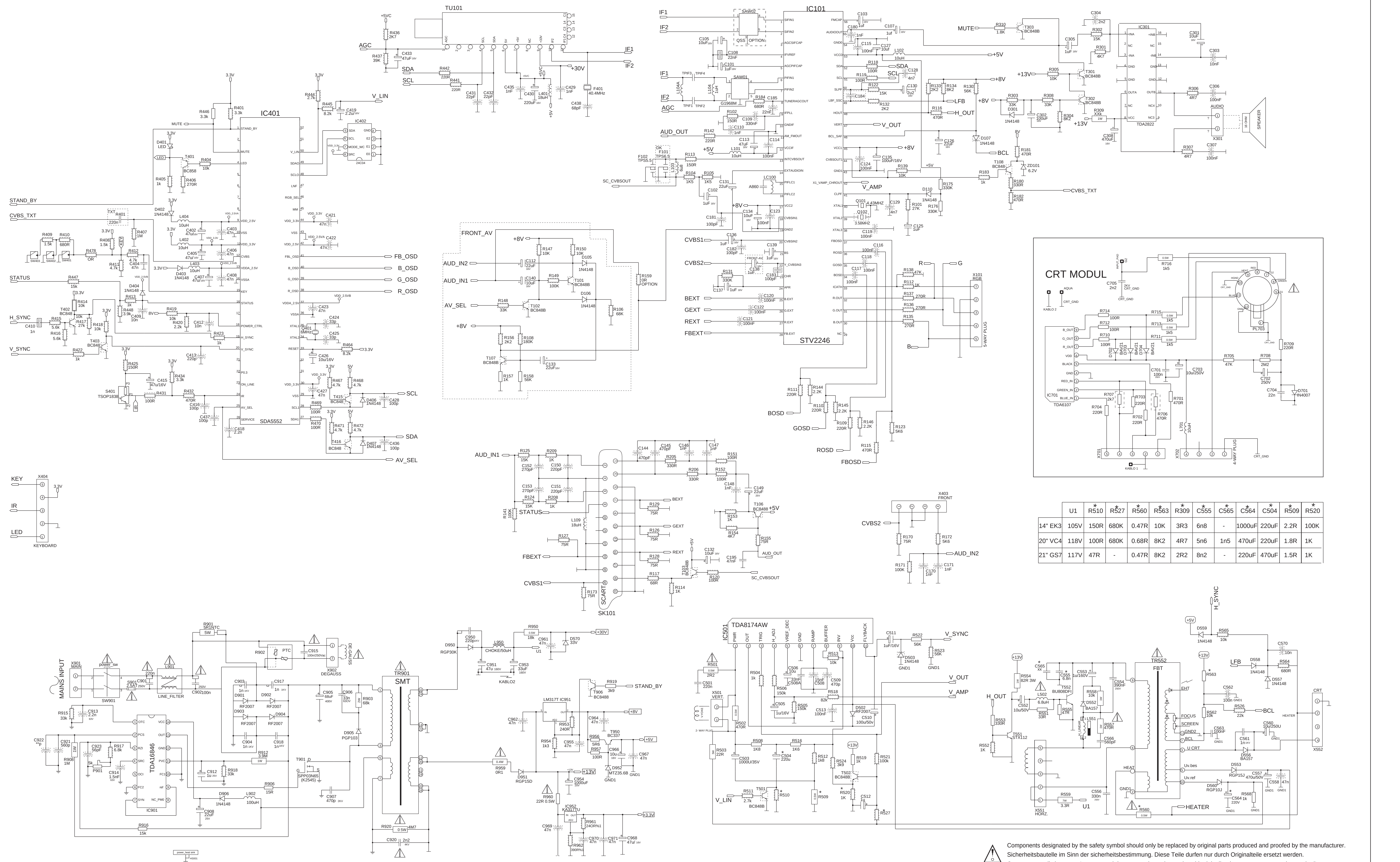
SPARE PARTS LIST

031675	CON.HOUSING 2P MALE		X901 X902
302786	DIODE Z. MTZJ6.2B		ZD101
303771	DIODE Z. UZT33V		ZD570
303735	MTZJ5.6B		ZD952
056314-EK3	CPT EK A33EKC01X01	14"	
056321-GS7	CPT GS A51QAE320X67 (WALES)	21"	
056320-VC1	CPT VC A48EJW011X21	20"	
614167-AS	DEGAUSSING COIL ASSY 14" BA 	14"	
620167-AS	DEGAUSSING COIL ASSY 20" BA 	20"	
621167-AS	DEGAUSSING COIL ASSY 21" BA 	21"	
B25187	R.CONTROL SILVER PAINTED B-		
C29187	RC A.TYPE SILVER PAINTED		
M93187	RC B.TYPE YLG PAINTED 12.4/		
6BZ107-AS	SPEAKER SM 16R/3W		
5FZ107-AS	SPEAKER SM 8R/3W NOM.50*90		

Please note that Product Part List Files should be investigated for the mechanical parts like cabinets, etc.

12.8 CTV CHASSIS

G80 820



Components designated by the safety symbol should only be replaced by original parts produced and proofed by the manufacturer.
Sicherheitsbauteile im Sinn der sicherheitsbestimmung. Diese Teile dürfen nur durch Originalteile ersetzt werden.
Contrassegno di sicurezza. I componenti devono, corrispondere a ricambi originali e devono essere montati a regola d'arte.

CHASSIS

